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JOHN C. STENNIS SPACE CENTER

# Evolved Expendable Launch Vehicle Program Fact Sheet

The Department of Defense established the Evolved Expendable Launch Vehicle (EELV) program to fulfill the pressing national need for a lower-cost, more reliable national space launch system. EELV is a top priority, U.S. Air Force program that will develop modern rocket technology to design and build a family of expendable, or nonreusable, rockets to replace the aging Delta, Atlas and Titan.

**EELV Will Use Modern Technology**
The government's current expendable rockets are based on 1950s technology and are expensive to build and operate. The EELV may be a new design of the existing boosters or a new design based on current technology. Some aerospace companies bidding on the project may propose using Russian-designed rocket boosters. The EELV will be designed to place payloads weighing from about 2,500 pounds to 45,000 pounds into a low-Earth orbit with the goal of cutting the cost of rocket launch vehicles from 25 percent to 50 percent.

**SSC Served as Base Site for EELV Contractor**
The John C. Stennis Space Center (SSC), in South Mississippi is NASA's lead center for rocket propulsion testing. In summer 1996, SSC served as the base site for one of four contractors bidding for the EELV program. Stennis Space Center test personnel helped conduct new technology demonstration tasks and engine and system testing. Facilities at Stennis Space Center allowed the EELV contractor the opportunity to utilize existing propulsion test facilities.

**Test Facilities at SSC Benefit the Nation**
Stennis Space Center's consolidation of propulsion test facilities provides the nation with the most economical and efficient path to more routine access to space. SSC has six facilities that are used for propulsion-related testing. Three large test stands have been used to test Space Shuttle Main Engines (SSME) since 1975. The stands were originally built in the early 1960s to test the first and second stages of the Saturn V rocket that safely transported Americans to the moon. Other facilities at SSC offer unique capabilities, such as testing individual rocket components and turbopump machinery, as well as materials for future hypersonic aircraft.

**Air Force Will Select Two Contractors**
The Air Force's Missiles & Space Division selected four contractors in August 1995 to refine concepts and designs and to test the key technologies needed to build an EELV. The downselect to two contractors is expected in December 1996.

Each contractor will receive $65 million for a 17-month performance period to continue refining their EELV designs. Final contractor selection is expected in mid-1998. The winner will receive $1.6 billion for an eight-year performance period to prove its full manufacturing capability. Two low-risk payload flights to demonstrate the system will occur in the year 2000, and a single heavy lift flight is planned for the year 2003.

The Evolved Expendable Launch Vehicle Program is a $2 billion Department of Defense program that will focus on using existing technology, foreign and domestic, to develop a family of expendable launch vehicles capable of replacing the current medium- and heavy-rocket fleet. Its objective is to make space launch more affordable, reducing the total cost of launch to the nation.

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